## ABSTRACT OF THE DISCLOSURE

Osteochondral repair of damaged articular joint surfaces is achieved using implants in the form of cylindrical osteochondral plugs. The plugs have an articular surface formed on at least one end. If articular surfaces are provided on both ends of the implant, the articular surfaces have differently curved surfaces. The defective cartilage is removed to create a recipient socket for the implant. An implant sized to fit the recipient socket is chosen from a plurality of implants provided to the surgeon. The implants are preferably formed of a hydrogel material such as Salubria<sup>TM</sup>, although metal or allograft implants can also be used.